JOURNAL OF
Neurobiology

Volume Contents

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Cover: Confocal microscope images of HEK 293 cells transfected with a construct containing the rat I7 olfactory receptor tagged with Flag at the N-terminus and EGFP separated from Flag::I7 by an IRES sequence. The cells were labeled with red fluorescent anti-Flag and blue fluorescent anti-EGFP antibodies. Green fluorescence comes from the independent, soluble EGFP. In permeabilized cells (top), both anti-Flag (red) and anti-EGFP (blue) antibodies cross the plasma membrane and label intracellularly located fusion protein and EGFP. In unpermeabilized cells (bottom), although EGFP is present throughout the cell, only the red anti-Flag labeling is visible, indicating the proper membrane localization of the Flag::I7 protein, with its N-terminal Flag epitope located extracellularly. See the article by Ivic et al. on pages 56–68.

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Cover: A scanning electron micrograph of the surface of a bullfrog's saccule that shows a hair bundle and cuticular plate that have separated from the soma of a gentamicin-damaged hair cell. Exposure to short-term, low-dose gentamicin causes loss of the sensory apparatus from hair cells, which can survive and recover. Electron microscopy, time-lapse, and multi-photon recordings were used to observe bundle separation, survival of bundleless hair cells, and repair of damaged hair cell surfaces as described in Gale et al., pages 81–92.

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Cover: The cell death protein p53 is induced in adult rat lumbar motor neurons after sciatic nerve avulsion. Immunoperoxidase staining for p53 (brown labeling) shows the nuclear accumulation of p53 by 5 days after the injury. p53 decorates strands within the nucleus (top motor neuron), consistent with its DNA binding function. Motor neuron apoptosis after nerve injury is p53-dependent and may be induced by early DNA damage. The finding that motor neuron death may be DNA damage-induced, p53-mediated apoptosis is relevant to the mechanisms of motor neuron death signaling in ALS and spinal cord injury. See the article by Martin and Liu on pages 181–197.

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Cover: Pseudocolor image of a *Helisoma* B5 growth cone that is co-injected with the Ca^{2+} indicator, calcium green, and the Ca^{2+} cage, NP-EGTA. The image was taken on a confocal microscope (LSM 510, Carl Zeiss, Inc.) and represents the first image in a time series taken immediately after the photo-release of Ca^{2+} from NP-EGTA (See Fig. 1B of the article on page 266 by Cheng et al.) Ca^{2+} was photo-released for 0.4 seconds with the 351 and 364 nm lines of an UV laser (Enterprise, Coherent Laser Group) focused on a 60 μm^2 area in the central domain of the growth cone. Photo-release of Ca^{2+} in different regions of growth cones was performed in this study to determine how spatial and temporal elevations of Ca^{2+} influence growth cone behavior.